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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,360	12/06/2001	Shoji Kobayashi	10973-063001	1671

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EXAMINER	
TSIDULKO, MARK	
ART UNIT	PAPER NUMBER
2875	

DATE MAILED: 10/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	10/006,360	KOBAYASHI ET AL.	
	Examiner	Art Unit	
	Mark Tsidulko	2875	

-- The MAILING DATE f this communication app ars on the cover sheet with th correspondence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 06 December 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The disclosure (Abstract and Specification) is objected to because of following informalities at numeral places: it is unclear what applicant intends by "***one's own** vehicle*". "**One's own**" should be changed to "**a**" or "**said**". Appropriate correction is required.

Claim Objections

2. Claims **1, 2, 12, 13** are objected to because of the following informalities: it is unclear what applicant intends by "***one's own** vehicle*". "**One's own**" should be changed to "**a**" or "**said**". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims **1, 2, 3, 8, 9, 11, 12** are rejected under 35 U.S.C. 102(a) as being anticipated by Kobayashi et al. (GB 2355869).

3. Referring to Claim **1** Kobayashi et al. disclose (Fig.1):

- map information acquiring means (travel region judging means [3]) for acquiring positional information on vehicle on a map (page 6, line 27 – page 7, lines 1-27) and the invironmental information (page 6, lines 17-25);

- environmental condition detection means (page 6, lines 17-27) for detecting an environmental condition relating to a traveling road according image information;
- light distribution control means [4] for varying the light distribution of a headlamp attached to the vehicle in accordance with the travel condition of the vehicle and the environmental condition. The light distribution control means performs light distribution control over the headlamp according to information detected by map information acquiring means and environmental condition detection means.

4. Referring to Claims **2, 3** Kobayashi et al. disclose (Fig.1) that the light distribution control means [4] over headlamp is performed by switching information from environmental condition detection means (which derives information detected by imaging means [2b]) and the information derived from map information means [3] (see page 26, lines 24-27; page 27, lines 1,2).

A lane detection is a perquisite of the imaging means [2b] which provides indication of vehicle steering angle. It is understandable that the detected result can be only positive (good) or negative (bad).

5. Referring to Claim **8** Kobayashi et al. disclose (Fig.1) steering information acquiring means (Drive condition detecting means [7]) for acquiring steering information to supply a light distribution control means (page 22, lines 23-27; page 23 lines 1-13).

6. Referring to Claims **9, 11** Kobayashi et al. disclose (Figs.1, 17) that the light distribution control means controls driving means which controls an optical axis of the head lamp. Lighting control direction is not limited (page 31, lines 11, 12).

7. Referring to Claim **12** Kobayashi et al. disclose (page 57, lines 20-24, 27; page 58, lines 1, 2) that the light distribution control means controls an optical axis of the head lamp to illuminate an area ahead of the vehicle.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims **4, 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (GB 2355869).

8. Referring to Claim **4** Kobayashi et al. discloses (Fig.1) a vehicle headlight control system having a map information means, environmental condition detecting means and light distribution control means, but does not disclose that the first information acquired by map information means is different from the second information acquired by environmental detection means and the first information is modified according to the second information and the light distribution control is performed by using the modified information.

Kobayashi et al. discloses the instant claimed invention except for the light distribution control is performed by using the modified information.

The light distribution control is performed by using the modified information because:

both the present position information of a vehicle and environmental information should be acquired in a periodic manner (for example, on the order of 1 second). Environmental condition detecting

means detects an environmental condition relating to a traveling road according image information and than this information is used by the map information means and goes to the light distribution control. It means that the information acquired by environmental condition detecting means every 1 second (second information) is different from the previous (first) information and every 1 second the light distribution control means uses a modified information.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made to provide the light distribution control of Kobayashi et al. ('869) for head lamp apparatus of Kobayashi et al. ('360) in order to control modified information by light distribution control means.

9. Referring to Claim **13** Kobayashi et al. discloses (page 29, lines 11-14) a vehicle lamp unit [10b] for lighting a side scene of the road.

Kobayashi et al. the instant claimed invention except for light distribution control means controls to irradiate a lane mark near the vehicle.

Since the lamp units [10b] illuminate a side scene of the road where lane marks are located and light distribution control means controls a whole lighting member it is of course understood that the light distribution control means controls to irradiate a lane mark near the vehicle.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made to provide the light distribution control means of Kobayashi et al. ('869) for lamp head apparatus of Kobayashi et al. ('360) in order to control illumination a lane mark near the vehicle.

Claims **5, 6, 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (GB 2355869) in view of Gotoh (U.S. 5,193,572).

10. Referring to Claim **5** Kobayashi et al. discloses (Fig.1) a vehicle headlight control system having an imaging unit [2b] for forming an image ahead of the vehicle.

Kobayashi et al. discloses the instant claimed invention except for when detection capability of the imaging unit is low, light distribution control means performs light distribution control according to the information derived from map information acquiring means.

Gotoh discloses (Fig.4) head lamp device for vehicle wherein imaging unit [12] and map information means [21] are connected to the light distribution control means separately and when the imaging unit is low, the light distribution control means performs light distribution control according to the information derived from map information acquiring means.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made to provide connection of the imaging unit and map information unit to the light distribution control means as taught by Gotoh for the headlamp of Kobayashi et al. in order to perform light distribution control according to the information derived from the map information means when detection capability of the imaging unit is low.

11. Referring to Claim **6** Kobayashi et al. discloses (Fig.1) a vehicle headlight control system having an imaging unit [2b] for forming an image ahead of the vehicle having a lane-mark detection capability (page 15, lines 22-25).

Kobayashi et al. discloses the instant claimed invention except for when lane-mark detection capability of the imaging unit is low, the light distribution control means performs light distribution control according to the information derived from map information acquiring means.

Gotoh discloses (Fig.4) head lamp device for vehicle wherein imaging unit [12] and map information means [21] are connected to the light distribution control means separately and when the

lane-mark detection capability of the imaging unit is low (i.e. imaging unit is low), the light distribution control means performs light distribution control according to the information derived from map information acquiring means.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made to provide arrangement of the imaging unit and map information unit to the light distribution control means as taught by Gotoh the headlamp of Kobayashi et al. in order to perform light distribution control according to the information derived from the map information means when the lane-mark detection capability of the imaging unit is low.

12. Referring to Claim 7 Kobayashi et al. discloses (Fig.1) a vehicle headlight control system having an imaging unit [2b] for forming an image ahead of the vehicle.

Kobayashi et al. discloses the instant claimed invention except for when worsering of weather is detected, light distribution control means performs light distribution control to according the information derived from the map information means.

Gotoh discloses (Fig.4) head lamp device for vehicle wherein imaging unit [12] and map information means [21] are connected to the light distribution control means separately and when worsering of weather is detected (i.e. imaging unit is low), the light distribution control means performs light distribution control according to the information derived from map information acquiring means.

It would have been obvious to one having ordinary skill in the art, at the time the invention was made to provide arrangement of the imaging unit and map information unit to the light distribution control means as taught by Gotoh the headlamp of Kobayashi et al. in order to perform light distribution control according to the information derived from the map information means when detection capability of the imaging unit is low as result of worsering of weather.

13. Claim **10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al. (GB 2355869) in view of Stam et al. (U.S. 5,837,994).

Kobayashi et al. (Fig.1) a vehicle headlight control system having a light distribution control means [4].

Kobayashi et al. discloses the instant claimed invention except for the light distribution control means controls an infrared lamp.

Stam et al. discloses (Fig.5) the light distribution control unit [201] that controls the infrared lamps [206] (col.3, lines 48-56). It would have been obvious to one having ordinary skill in the art, at the time the invention was made to provide the light distribution control unit of Stam et al. for the device of Kobayashi et al. in order to control emitting of infrared ray.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Tsidulko whose telephone number is (703)308-1326. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703)308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800

M.T.
October 11, 2002